

SUBSTITUTE SPECIFICATION  
TITLE OF THE INVENTION  
FINISHING PROCESS

5 *SUB B<sub>1</sub> >*  
*INS B<sub>2</sub> >*

[0001] This is a continuation of International Patent Application No. PCT/DE00/02330 designating the United States, filed July 15, 2000, published February 8, 2001 as WO 01/08899, the entire contents of which are incorporated herein by reference thereto.

10 *SUB B<sub>3</sub> >*

*SUB B<sub>7</sub> >* [0002] The invention relates to a process for finishing printed [securities] security sheets.

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[0003] Watermarks produced during the production of "security papers" are a well-known security feature of security papers.

[0004] A watermark can be produced by generating a selectively different construction on the body of the paper with respect to the thickness and/or the density of the material by appropriate processes during the manufacture of the paper.

[0005] The desired motifs (such as portraits) can be produced in the paper by the different construction, for example, by variable light transparency of the material generated in the paper. In this connection, it is a disadvantage that the motif becomes clearly visible only when the paper is placed on a light table or held against light.

Moreover, these papers are worn away heavily during use so that, as a result, it is no longer possible in some cases to identify the security feature.

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[0006] It is an object of the invention to provide a process for finishing printed security sheets, so that the security features can be identified better.

[0007] Pursuant to the invention, this objective is accomplished by the distinguishing feature or features of the first claim.

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[0008] By lacquering a printed security paper, especially with a colorless lacquer, the transparency of the paper is increased greatly, depending on the construction of the paper, the type of lacquer, the method of applying the lacquer and the amount applied. If a watermark of a security paper is lacquered on one or both sides, the motif of the watermark is visible more clearly, because of the different transparency, which results from the different construction of the paper. The watermark can be recognized clearly even without help (such as a source of light). This effect is intensified, for example, by sources of light or simply by a dark base.

[0009] In the following, the process is explained in greater detail by means of an example. A security sheet with a security feature such as a watermark, is printed in a printing press. Subsequently, that is, after the printing process, the printed security sheet is lacquered in the printing press with a special lacquering device or in an external lacquering facility with a feeding apparatus and a sheet delivery apparatus.

[0010] Advisably, the whole sheet is lacquered and a certain part or parts of the whole sheet, for example, the part of the sheet with the watermark, is lacquered. Partial lacquering improves the identifiability of the security feature and lacquering the whole sheet prolongs the identifiability of the security feature and the service life of the security sheet, when used for a prolonged time.

[0011] Since the manufacturing process of the security sheets may be prolonged by the lacquering process, it is advantageous to carry out the lacquering process, that is, the total and partial lacquering, in one step. For this purpose, a first lacquering unit comprising a lacquering cylinder and a screen roller with a doctor blade is assigned to a printing cylinder and a second lacquering unit comprising a lacquering cylinder and a screen roller with a doctor blade is disposed upstream from the lacquering cylinder.

[0012] The lacquering may be carried out with colorless lacquer.